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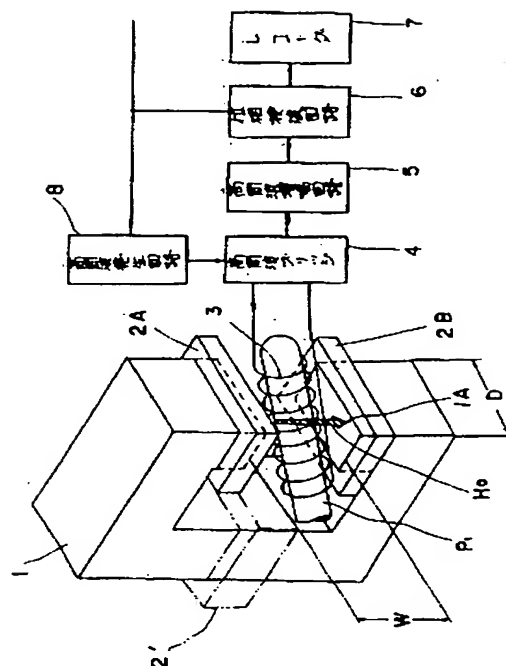
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TITLE : SMALL MAGNETIC RESONANCE
IMAGING APPARATUS



ABSTRACT : PURPOSE: To enable a lower cost with an excellent performance though the equipment is small and simple, by arranging a permanent magnet for generating even an magnetic field sandwiching a local part of an object to be inspected, a superconductive magnet for strengthening the magnetic field and a receiving coil.

CONSTITUTION: An even magnetostatic field H_0 with a permanent magnet 1 works longitudinally while a linear magnetic field gradient is added with magnetic gradient field coils (not illustrated) arranged above and below the local part P_1 of an object to be inspected and when an RF signal is fed to a solenoid coil 3, a magnetic resonance MR phenomenon is caused at the local part P_1 . The even magnetic field H_0 is strengthened by superconductive magnets 2A and 2B (or 2'). The MR phenomenon is received with the coil 3 to be inputted into a phase detection circuit 6 through a high frequency bridge 4 and a high frequency amplification circuit 5 and based on the output of the circuit 6, an image is recorded with a recorder 7. In this manner, only the local part, not the entire part of the object to be inspected can be covered to make the equipment smaller and lighter thereby reducing cost with limited amount of superconductive material.

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